

WHAT IS CLAIMED IS:

1. An image reading device comprising:  
a photo film passageway for guiding and passing developed photo film;  
5 a light source for illuminating an image in said photo film positioned in said photo film passageway;  
an image sensor for reading said image being illuminated;  
a mask member, secured to said photo film passageway,  
10 and on which said image is passed; and  
a mask opening, formed in said mask member, for directing light from said light source toward said photo film.
2. An image reading device as defined in claim 1,  
15 wherein said mask opening is a mask slit extending in a width direction of said photo film.
3. An image reading device as defined in claim 2, wherein said mask member is removably secured to said photo film passageway.
4. An image reading device as defined in claim 3, further comprising a photo film carrier having said photo film passageway;  
wherein said photo film carrier includes a feed roller for conveying said photo film in a longitudinal direction  
25 thereof, said image being read by said image sensor line by line while said feed roller conveys said photo film.
5. An image reading device as defined in claim 4, further comprising a protrusion portion disposed on said mask member to extend in said width direction of said photo film,  
30 provided with said mask slit formed in a middle thereof, for flexing said photo film in said longitudinal direction to



wherein said retainer member comprises a portion for effecting retention with a click.

12. An image reading device as defined in claim 10, further comprising:

5 at least one positioning hole formed in one of said carrier base member or said diffuser plate and said mask member; and

at least one positioning pin, disposed to protrude from a remaining one of said carrier base member or said diffuser  
10 plate and said mask member, fitted in said positioning hole, for positioning said mask member on said carrier base member or said diffuser plate.

13. An image reading device as defined in claim 6, further comprising a retainer member for retaining said  
15 diffuser plate removably to said carrier base member.

14. An image reading device as defined in claim 6, further comprising a fastening member for immovably fastening said diffuser plate to said carrier base member, said fastening member being separable by external operation, and  
20 allowing removal of said diffuser plate.

15. An image reading device as defined in claim 6, wherein said light source is disposed under said photo film passageway, said diffuser plate and said mask member are disposed to define a predetermined space therebetween, and  
25 dust on said photo film is dropped into said space.

16. An image reading device as defined in claim 6, wherein said photo film is a selected one of at least first and second types;

said mask member is a selected one of at least first and  
30 second mask members associated with respectively said first and second types, and secured to said photo film passageway

selectively.

17. An image reading device as defined in claim 16,  
wherein said first and second types have widths different  
from one another, and said first and second types have said  
5 mask slit with a length different therebetween.

18. An image reading device as defined in claim 6,  
further comprising:

first and second auto focus charts, disposed at  
respectively first and second ends of said mask slit as  
10 viewed in said width direction of said photo film, having an  
auto focus pattern common therebetween and adapted to  
focusing of a pick-up lens;

said image sensor picking up said first and second auto  
focus charts, for obtaining first and second pick-up  
15 information;

a control unit for obtaining contrasts of said first and  
second auto focus charts according to said first and second  
pick-up information, for detecting abnormality in an  
orientation of said mask member on said carrier base member  
20 if said contrasts have a difference beyond a tolerable range  
with said pick-up lens set in-focus, and for generating an  
alarm signal.